



# memorandum

date February 26, 2015

to Angie Mathias, City of Renton  
Chip Vincent, City of Renton

from Ilon Logan and Teresa Vanderburg

subject City of Renton CAO Update: Additional Information for Wetland Buffers

The City of Renton (City) is in the process of updating its Comprehensive Plan and Critical Areas Ordinance (CAO, Renton Municipal Code [RMC] 4-3-050) in accordance with the requirements of the Growth Management Act (GMA) (RCW 36.70A). The GMA requires jurisdictions to consider best available science in the development of critical areas policies and regulations. ESA reviewed the City's CAO for consistency with the current scientific literature and applicable regulatory agency guidance and provided summary of its findings in a memo dated October 21, 2013. Per the City's request, ESA provided a separate memo to address wetland protections, particularly wetland buffers and best available science (memo dated November 20, 2014). Currently, wetlands in the City that occur outside of shoreline jurisdiction are rated according to a three-tier system and have standard buffer widths as shown in Table 1.

**Table 1. Existing wetland buffer widths in Renton CAO <sup>1,2</sup>**

Wetland Category	Standard Buffer (feet)
Category 1	100
Category 2	50
Category 3	25

<sup>1</sup> Renton Municipal Code 4-3-050 M6

<sup>2</sup> Wetlands not regulated under City's Shoreline Master Program

Based on discussions with the City, we have developed this follow-on memo to provide the results of a limited review of the City's wetland inventory and existing land uses and additional information on wetland buffers adopted by neighboring jurisdictions.

## Limited Land Cover Analysis

Our previous memo on wetland buffers included an option for developing a new buffer scheme and widths based on the results of a land cover analysis. We suggested that the City undertake a process to consider the current condition of wetlands and buffers in the City and whether larger buffer widths would result in additional wetland protection. This analysis would be useful to demonstrate if the wetland buffer scheme and widths recommended

by the State's (i.e. Department of Ecology) best available science would provide additional wetland protection in the urban setting of Renton.

To conduct a preliminary investigation of the City's wetland buffer conditions, we overlaid the City's wetland inventory data (downloaded from the City website) on aerial imagery using Google Earth™ for a simple visual analysis. Our purpose was to observe the overlap of current land uses, land cover, wetland locations and the existing condition of the corresponding wetland buffer. Our focus was on wetlands outside of shoreline jurisdiction only and did not include wetlands associated with streams or lakes designated as "shorelines of the state" under the City's SMP (Black River/Springbrook Creek, Green River, Cedar River, May Creek, Lake Washington, and Lake Desire). Exhibit A displays the designated shoreline reaches and the City's wetland inventory. The exhibit is for visual purposes only and is helpful in observing the location of wetlands outside shoreline jurisdiction.

The City's wetland inventory dataset does not contain the individual rating for each wetland, so we were unable to know the category for each wetland in the inventory. In addition, the location of wetlands deemed "associated" with shorelines of the state, and thus under SMP jurisdiction, is not part of the wetland inventory dataset so we were unable to distinguish wetlands regulated under the SMP versus other wetlands. However, our simple analysis did provide the following information:

- Many of Renton's wetlands occur in a highly urbanized setting as small, stand-alone features. Many wetlands contain roads, parking lots, commercial and residential buildings, and other developed features within 25 to 50 feet of their inventoried edge. This is particularly true for the buffers of wetlands in the Renton Highlands. The vast majority of these wetlands have existing buffer areas that are narrower than the buffer widths currently called for by the state's best available science. In other cases, the buffers of wetlands in the City contain another critical area, primarily steep slopes, such as wetlands associated with headwater wetlands of Springbrook Creek (located east of Talbot Road).
- Panther Creek wetlands – This long and narrow wetland provides important flood storage capacity as well as wildlife habitat. However, this wetland is sandwiched between SR 167 and a steep slope along the Talbot Hill residential areas. The existing buffer along the west side is generally less than 50 feet with some areas of the highway coming within 20 feet of the inventoried wetland edge. East of the wetland, steep slopes are present with residential development at the top. The steep slopes are not buildable and Panther Creek (and tributaries) is protected by a 100-foot standard buffer.
- East Valley wetlands – Wetlands in the industrial East Valley (excluding those within shoreline jurisdiction) occur in a highly developed landscape with extensive infrastructure. The majority of these wetlands are either adjacent to the BSNF railroad, Boeing warehouses and other industrial uses, or heavily travelled roads such as Oakesdale Avenue SW and Lind Avenue SW as well as SR 167. The quality of buffers in the East Valley is quite poor with some wetlands having little to no buffer due to existing roads and development. Other buffer areas are narrow, degraded and/or dominated by invasive or nonnative species (as observed by ESA field staff during past projects).
- Big Soos Creek wetlands – Wetlands associated with Big Soos Creek are located within the floodplain and are valuable wetlands supporting salmonid habitat and salmon in the stream. These wetlands are partially protected by existing park lands, steep slope setbacks and/or stream buffer requirements.

Based on our limited and simple analysis, there are limited opportunities to meet the larger buffer widths recommended by Ecology and other relevant guidance due to the developed nature and existing landscape of Renton. For example, it is possible that requiring larger buffers as compared to the existing CAO on the Panther Creek wetlands would have little to no measurable effect on the level of wetland protection. For the City to

confirm that this is true for the majority of wetlands in the city, we would need to do additional analysis to determine and document the findings.

ESA's observations and conclusions about wetland and buffer conditions in the Renton Highlands and Big Soos Creek areas are further corroborated by your limited review of recent land use applications with wetlands on the subject property. Of the six land use applications for the Highlands area that included a wetland, none were rated as Category 1 wetland (three were Category 2 and three were Category 3). This is consistent with our findings that wetlands in this area tend to be small, stand-alone features of lower quality. For the Big Soos Creek corridor, one land use application was reviewed for a property on 108<sup>th</sup> Avenue NE that indicated the presence of a Category 1 wetland. There is a large portion of the Big Soos Creek wetland complex that falls in the jurisdiction of King County. According to King County iMap (wetland location viewer), the large wetlands associated with the confluence of Molasses Creek and Big Soos Creek that lie along boundary between the City and the County and are predominately south of Southeast Petrovitsky Road are Category 1.

## Summary of Neighboring Jurisdictions

ESA's previous memo on wetland buffers (dated November 20, 2014) summarized effective buffer width ranges from the current scientific literature for the State of Washington. As a follow-up, we have compiled a summary of wetland buffer widths adopted by jurisdictions adjacent or near to the City of Renton that have similar landscape conditions and levels of development/urbanization (Table 2 below). Similar to Renton, some of the jurisdictions shown below are in the process of a CAO update and have buffer widths that have not been reviewed or revised in several years (e.g., Newcastle, King County). However, several of the jurisdictions have recently updated their critical areas provisions based on best available science and have adopted the buffers shown in the table (e.g., Issaquah, Sammamish). We are not aware of any legal challenges to the adopted buffers and thus consider the information in the following table to be useful for City staff, Planning Commission, and City Council during this CAO update process.

For reference, we have also included the buffer widths for wetlands in the City of Renton's shoreline jurisdiction, which were adopted under the City's Shoreline Master Program in 2011. The summary table also includes the Ecology best available science-recommended buffer width ranges for each category. Table 1 previously listed Renton's existing standard buffer widths.

All of the buffer schemes shown in the summary table are based on the use of the *Wetland Rating System for Western Washington* (Hruby 2004) to rate wetland categories and the combination of the wetland category and the wildlife habitat score. This approach (i.e., category plus habitat score) is used in the sample wetland ordinance in *Wetlands and CAO Updates: Guidance for Small Cities Western Washington Version* Ecology Publication 10-06-002 (Bunten et al. 2012). Newcastle and King County have buffer schemes that also take into account proposed land use intensity (i.e., low, medium, and high impact land uses). Incorporating proposed land uses increases the regulatory flexibility by using the concept that not all proposed land uses have the same level of impact on adjacent wetlands (Granger et al. 2005).

In urbanized jurisdictions such as Renton, the majority of land uses and zoning designations fall into the high intensity category of level of impact (e.g., commercial, residential, etc.). However, some low-intensity land uses such as passive recreation (hiking, bird-watching) and unpaved trails occur in the City, which could support the use of incorporating land use intensity into the standard buffer width determination.

**Table 2. Wetland Buffer Comparison Table**

	Wetland Buffer Widths by Wetland Rating (feet) <sup>1</sup>										
Source or Local CAO (Date)	Category I					Category II			Category III		Category IV
	Bogs and Natural Heritage Wetlands	High Habitat Score	Med Habitat Score	Low Habitat Score	All Other Scores	High Habitat Score	Med Habitat Score	Low Habitat Score	Med Habitat Score	All Other Values	All Scores
Ecology <sup>3</sup> (2005)	150-300+					75-300			40-150		25-50
Renton Shoreline Master Program (SMP) (2011)	225	225	150	125	125	225	150	100	125	75	50
Kent (amended Aug 2006)	215	225	150	125	125	200	125	100	125	75	50
Tukwila (2005)	100	100	100	100	100	100	100	100	80	80	50
Newcastle <sup>4</sup> (amended Mar 2006)	125 / 190	150 / 225	75 / 110	50 / 75	50 / 75	150 / 225	75 / 110	50 / 75	75 / 110	40 / 60	25 / 40
Issaquah (Feb 2013)	190	225	150	100	75	225	150	100	75	50	40 <sup>5</sup>
Bellevue (June 2006)	190	225	110	75	75	225	110	75	110	60	40
Sammamish (July 2013)	215	200	150	125	125	150	100	75	75	50	50
King County <sup>6</sup> (Jan 2005)	215	225	150	150	125	200	125	100	125	75	50

## Table Footnotes

<sup>1</sup> Based on Wetland Rating System for Western Washington (Hruby 2004). The wetland rating system was updated in 2014 (Hruby 2014); only the City of Sammamish had a qualifier in their code to accommodate updates to the rating system.

<sup>2</sup> Based on Wetland Rating Score (Hruby 2004). Each jurisdiction varied slightly in defining high/medium/low habitat function so exact values are not shown. For exact values, refer to the Critical Area Ordinances

<sup>3</sup> Sheldon et al. 2005.

<sup>4</sup> Newcastle requires larger buffer widths for higher impact land uses for each category; the first number is for low impact land uses and the second for high to moderate land uses.

<sup>5</sup> Issaquah Category IV wetlands smaller than 2,500 square feet have no buffer requirement.

<sup>6</sup> King County provides separate guidance for wetlands within and beyond the Urban Growth Boundary. The values shown are for wetlands within the Urban Growth Boundary.

## Summary and Recommendations

A limited review of existing land uses, land cover, and City-inventoried wetlands found that most wetlands present outside of shoreline jurisdiction occur primarily in an urban developed setting. Many wetlands currently have narrow buffers that are interrupted by existing roads, parking lots, buildings or other development. Requiring larger buffer widths on wetlands in the City of Renton that are not associated with “shorelines of the state” or contiguous with salmonid-bearing streams (like Big Soos Creek) may have negligible effects on wetland protection. Additional analysis is needed to confirm and document this possibility.

Several jurisdictions located near the City of Renton have updated their wetland buffer widths per best available science or are currently in the process of a CAO update. Information from other jurisdictions could provide additional approaches to developing wetland protection measures appropriate for the City’s urban setting.

In general, ESA recommends that the City perform an update its wetland inventory to confirm these results or a City staff person to confirm these preliminary conclusions. There is not enough current information to accurately assess and analyze wetland quality or wetland ratings for areas outside of shoreline jurisdiction. In addition, we recommend that the wetland inventory map be displayed on the City’s web page along with the other critical areas maps shown (i.e., flood hazard, steep slopes).

At the request of the City, ESA has compiled a set of minimum standard buffer widths that could be appropriate for wetlands outside of shoreline jurisdiction (Table 3). The buffer scheme below incorporates the wetland category, wildlife habitat score, and proposed land use intensity.

The minimum buffer table is shown on the next page.

**Table 3. Potential minimum standard buffer widths for wetlands outside shoreline jurisdiction**

Wetland Category	Minimum Standard Buffer (feet) (Medium- and High-Intensity / Low-Intensity) <sup>1</sup>			
	High Habitat Score	Medium Habitat Score	Low Habitat Score	All Other Scores
Category I - Bogs and Natural Heritage Wetlands	200 / 175	200 / 175	200 / 175	200 / 175
Category I – All others	200 / 175	150 / 125	115 / 75	115 / 75
Category II	175 / 150	150 / 100	100 / 75	N/A
Category III	N/A	100 / 75	75 / 50	N/A
Category IV	50 / 40			

<sup>1</sup> Buffer widths dependent on impacts from proposed land uses. The first number is for low-intensity impact land uses and the second for moderate- and high-intensity land uses. Examples of different types of land uses that can cause low, medium, or high levels of impact are listed in Table 8C-3 in Granger et al. (2005).

## References

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